

MULTIMEDIA



UNIVERSITY

STUDENT IDENTIFICATION NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2017/2018

BDS3024 – BUSINESS INTELLIGENCE

(All sections / Groups)

17 MARCH 2018
2.30 p.m – 4.30 p.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 5 pages with 5 questions only.
2. Attempt **ALL** questions. The distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

QUESTION 1

Assuming that you are working in alibaba.com, your daily job is to do data mining to find patterns and trends of consumer behaviour. By understanding consumer behaviour, alibaba.com can provide better and more efficient service to consumers. For example, alibaba.com can deliver products to consumers faster.

In general, data mining seeks to identify **FOUR (4)** major types of patterns. Describe each pattern and give **ONE (1)** example for each pattern.

(Total: 20 marks)

QUESTION 2

Scorecards and dashboards are common components of most if not all performance management systems, performance measurement systems, BPM suites and BI platforms.

- (a) Explain **TWO (2)** differences between scorecards and dashboards. (8 marks)
- (b) Provide one example of scorecard and how it is used. (6 marks)
- (c) Provide one example of dashboard and how it is used. (6 marks)

(Total: 20 marks)

QUESTION 3

- (a) Explain how DMAIC performance model works to improve business process. (10 marks)
- (b) Explain what lean sigma is. (10 marks)

(Total: 20 marks)

CASE STUDY 1**Gregg's Cycles Goes Online**

Reputable bicycle manufacturers such as Gregg's Cycles do not sell their products online, nor do they allow their bicycles to be sold online by others. The manufacturer tries to avoid channel conflicts with its dealers and the independent bike shops that sell bikes. Gregg's Cycles believes that selling bikes is as much as about customer service as it is about the product.

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Each bike sold in one of Gregg's stores is custom fitted to the customer. This type of customer service cannot be done online. Therefore, when Gregg's Cycles decided to build a Web site, it decided to display all its bikes online so that customers could see the huge selection as well as use the site as a resource to learn about the bikes. As a bonus, the software Gregg's chose, CartGenie (from J Street Technology), made it easy to sell online peripheral products, such as parts, clothing, accessories, and complementary products, such as snowboards and inline skates.

With the CartGenie software the company is able to show the specs of each bike so that viewers can compare up to three bikes on one screen. Oftentimes, customers come into the company's physical stores armed with printouts from the Web site, knowing exactly what they want. In addition, the site displays inventory availability. If a store has the bike that the customers are looking for, they will quickly come to the store to get their bike.

The online store now carries over 7,000 SKUs, (stock keeping unit is an identification, usually alphanumeric, of a particular product that allows it to be tracked for inventory purposes) and caters to customers across the United States. Gregg's makes sure to mention its Web site address in all of its print ads and promotions. It also publishes an online newsletter to keep in touch with customers.

CartGenie enables bulk import of products to the corporate catalogue, a most useful feature. Another useful feature is CartGenie Connect, which automatically updates pricing and availability. CartGenie Connect also takes information directly from the point-of-sale database and syncs it with the online database. With over 7,000 SKUs, it would be close to impossible for a person to keep the site up-to-date.

CartGenie is available in the Standard, Pro, and Enterprise Editions. Key features include:

- Full support for B2B and B2C selling
- Multiple retail and wholesale price levels
- A built-in comparison engine for doing side-by-side product comparisons
- A complete inventory control module

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- Integrated UPS shipping calculator
- Volume discount pricing (for retailers, clubs, etc.)
- Search engine friendly product catalog system
- Integration with PayPal
- Built-in product import utilities
- Full support for real-time credit card processing

The Web site also offers information on customizing bikes, bicycle repair, bike rental, blogging, store locations, job opportunities, coupons, bike events, and more. Customers love the Web site; the company gets favourable responses from most who send comments.

Sources: Compiled from Rincon (2006), from greggcycles.com (accessed January 2008), and from jstreettech.com (accessed January 2008).

QUESTION 4

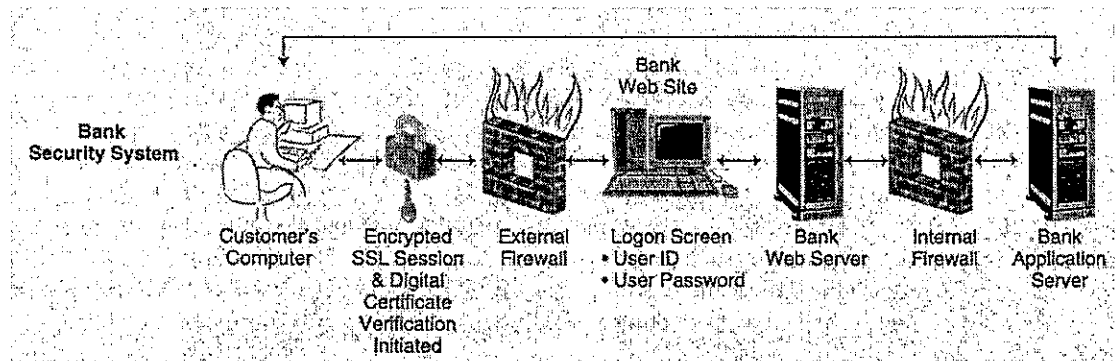
- (a) Why is this a B2B sell-side case? (5 marks)
- (b) What are **TWO (2)** benefits of this type of Web site for the company? (5 marks)
- (c) Relate the case to social networks (5 marks)
- (d) How does CartGenie support the site? (5 marks)

(Total: 20 marks)

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CASE STUDY 2

Security for Online Bank Transactions



Banks provide extensive security to their customers. The following describes some of the safeguards provided.

Customers accessing the bank system from the outside must go through encryption provided by SSL (Secure Socket Layer) and digital certification verification. The certification process assures users each time they sign on that they are indeed connected to their specific bank. The customer inquiry message then goes through an external firewall. Once the log-on screen is reached, a user ID and a password are required. This information flows through a direct Web server and then goes through an internal firewall to the application server.

The bank maintains accurate information. Corrections are made quickly.

Information is shared among the company's family of partners only for legitimate business purposes. Sharing information with outside companies is done with extreme care.

The bank does not capture information provided by customers when it conducts "what-if" scenarios using the bank's planning tools (to assure privacy). The company does use cookies to learn about its customers; however, customers can control both the collection and use of the information. In addition, the bank provides suggestions on how users can increase security (e.g., "Use a browser with 128-bit encryption").

Sources: Compiled from various security statements of online bank Web sites, including Cooperativebank.co.uk (2006) and Thestatebank.com (2006).

QUESTION 5

- (a) Why is security so important for a bank? (5 marks)
- (b) Why is there a need for two firewalls? (5 marks)
- (c) Who is protected by the bank's security system - the customer, the bank, or both?
Elaborate. (5 marks)
- (d) What might be the limitations of such a system? (5 marks)

(Total: 20 marks)

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